

# **USER MANUAL**

## **Fixed Cellular Terminal**

**S190TG**



**Thank you for buying our products.**

**To reduce the risk of fire, electric shock and/or personal injury, please read this manual before using this unit.**

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## **1 Before Getting Started**

### **Copyright notice**

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## Use and care

To care for your product, please keep it away from:



Liquids of any kind

Don't expose your product to water, rain, extreme humidity, sweat, or other moisture.



Dust and dirt

Don't expose your product to dust, dirt, sand, food, or other inappropriate materials.



Extreme heat or cold

Avoid temperatures below  
-10°C/14°F or above  
45°C/113°F.



### Cleaning solutions

To clean your product, use only a dry soft cloth.

Don't use alcohol or other cleaning solutions.



### Microwaves

Don't try to dry your product in a microwave oven.



### The ground

Don't drop your product.

## Introduction

This manual is designed to familiarize you with your GSM router S190TG. To get maximum benefit from this product, we suggest that you read the instruction manual carefully. You are advised to keep the manual safely for reference in future.



You will find that the GSM Router is the most economical way to route your Mobile / Long distance calls through the GSM mobile, reducing your communication cost. We are sure you will be satisfied with its performance.

## 2 Parts Checking List

GSM Router	1
Adaptor (outputDC12V)	1
Antenna	1
User's Manual	1

## 3 Features and SPEC

### Main features

1. Remote programming
2. GSM line supporting area code or IP number dialing

3. Four band 850/900/1800/1900 MHz auto compatible.
4. 12V DC operated (can be connected to a 7.5V truck battery).
5. 48V line voltage (suitable for all types of PABX and billing machine).
6. RJ-11 socket for easy interface with any kind of PABX system.
7. FSK or DTMF Caller ID.
8. Outgoing calls limit.
9. Phone lock/ SIM card lock/ Network lock/ Cell Lock.

## **Physical & Environmental**

### **Desktop**

Power Input: 220 to 230 ACV / 50/60Hz 12V DCV  
1000mA

Dimensions: 185 x 13 x 41mm

Weight: 470g (main unit)

Ambience temperature: -10°C ~ +45°C

Relative humidity: 10% ~ 95%

Air pressure: 86 ~ 106Kpa

## 4. Set up and Installation

### Inserting a SIM Card into the unit

You may prepare your SIM card in a GSM phone prior to inserting it into the unit. Ensure that the SIM card PIN facility is disabled.

If the SIM Card is working with the phone, it is ready for use in the unit.

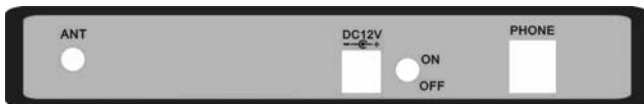
If unit can not login, error code will display on telephone LCD, and please refer to error code list at the following of this manual.

If the SIM has been locked, unit will report 000002 error codes at the LCD of phone. Then pick up the handset and input the pin code, if the pin is correct, it will make a “Bee” tone and then register the SIM. If the pin is error, it will make a “Di-Di-Di” tone and need input the pin again.

If you wish to protect the SIM card inserted in the unit, please refer to the GSM features at the

appendix.

## Interface Description



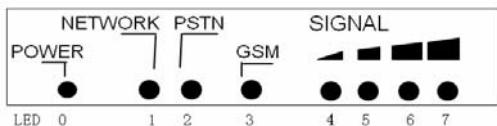
**PHONE:** Connect a Caller ID Telephone instrument to this connection.

**DC12V:** Connect the power adapter output to this connection.

**ANT:** Connect the antenna to this connection.

## LED/LCD Indications

Insert the SIM card in the SIM card holder provided at the bottom of the router, connect the power supply, connect the antenna and then switch on the UNIT. The LEDS will glow.



The signals of LEDS are as following:

All LEDs glow and roll then flash	This means that the UNIT is initializing the software and login the network
the signal LEDs glowing	This means that the UNIT is working. The number of signal LEDs glowing indicates the signal strength.
Network LED flashing	This means the UNIT is at standby mode
Network LED glowing	This means that the UNIT is in using and the number is being dialed.
GSM LED glowing	This means that the GSM line is in using.
<i>PSTN LED glowing</i>	<i>No use for S190TG</i>
1-7 LEDs glowing	This means that the initialization has failed and the number of LEDs glowing stands for the code of error. In this case the error code will be

	sent to the telephone instrument connected to the UNIT in form of digital code.
--	---

While UNIT is connected to a phone the following error codes will be displayed on phone LCD:

Code	Explanation	Solving method
1	Cannot check SIM Display: 000001	Please check whether SIM card is inserted properly or not.
2	PIN code request is activated Display: 000002	Please feed the correct PIN code (in most of the cases the default PIN is 1234 until it has been changed). The SIM will be locked after feeding incorrect PIN for 3 times.
3	SIM is locked Display: 000003	Please feed the correct PUK number to unlock the SIM. PUK number

		can be obtained from the GSM service provider.
4	Incorrect SIM or can not register in specified network Display: 000004	Please check the SIM and contact the GSM service provider. Please insert the SIM in any normal mobile phone and check whether it works there.
5	Failed to initialize. Caller ID: 000006	Switch off the UNIT and restart.
6	The UNIT is locked display 000008	Please insert the correct SIM card to use or unlock the UNIT
7	The network is locked display 000009	Please insert the correct network SIM card to use or unlock the UNIT
8	The cell is locked display 000010	Please use the UNIT in correct cell or unlock the UNIT

*NOTE: If the UNIT continues to mal-function contact our customer care centre to get on-line help.*

## 5 Setting and Program Operation

### **Setting mode introduces:**

1. Only get in the setting mode can program the UNIT.
2. The get in the setting mode way: pick up the phone of the UNIT and then input code “\*\*#”, then can hear “Bee”. This is in setting mode. And in this mode, you can only program the UNIT, can't make a call.
3. The exit setting mode way is: hang up.
4. In the setting mode, one signal LED (the lowest signal LED) grows. To notice the user he is in setting mode.

In setting mode input the others program code to program UNIT, it will have another one signal LED grow. To notice the user he is in the program mode.

5. In program mode, if the program code is correct it



will make “Bee” tone, if error it make “Di-Di-Di”.

6. in program mode. After input a program code, if you want to continue do program without exit to the standby mode. Then press “\*#” can exit the program mode to setting mode.

UNIT phone operate: “program mode”-→\*#→setting mode-→\*#→standby mode”

For example: pick up the handle input \*\*#

\*\*34#0000#. You can hear \*\*# (“Bee”) \*\*34# (“bee”) 0000# (“bee”).

## **Restore Default Setting**

This command can be used to delete all the programmable settings and restore default factory settings.

Program code: \*\*00#

## **Control Caller ID Display**

Display FSK caller ID (Default): \*\*14#1#

Display DTMF caller ID: \*\*14#2#

Deactivate Incoming Caller ID: \*\*14#0#

Default is DTMF caller ID display

**NOTE:**

*If set \*\*14#0# when the GSM number of UNIT has an incoming call, it will not display the caller ID.*

**Hardware check**

Check IMEI Number

Program code: \*\*06#

Key in \*\*##\*\*06# via caller ID phone and then hang up, UNIT IMEI number will display on phone LCD.  
Example: 5260663, it is the IMEI number.

**Check the version of software**

Program code: \*\*01#

Key in \*\*##\*\*01# via caller ID phone and then hang up, UNIT software version number will display on phone LCD.

## Set Speaker Volume

This command can be used to change the speaker volume when talking.

Program code: **\*\*11#LEVEL#**

LEVEL: integer value with specific range 0-100

Default: 90

## Set Microphone Gain Level

This command can be used to change the microphone gain level when talking.

Program code: **\*\*12#0\*GAINLEVEL#**

GAINLEVEL: integer 0    0dB

1	+1.5dB
2	+3.0 dB
3	+4.5 dB
4	+6.0 dB
5	+7.5 dB
6	+9.0 dB
7	+10.5 dB
8	+12.0 dB
9	+13.5 dB
10	+15.0 dB

11	+16.5 dB
12	+18.0 dB
13	+19.5 dB
14	+21.0 dB
15	+22.5 dB

Default: 3

### **GSM Dialing Set (Convert Prefix number)**

This Function can be used to convert the prefix numbers. Max is 50 sets for GSM line only.

In this operation the first few digits can be replaced by other digits as desired. e.g. while dialing 9522-27563637 it can be converted to 022-27563637.

Program code : **\*\*22#NUMBER\*REPLACE TO#**

**NUMBER:** This is the prefix number which is to be replaced by another number; this can be up to 8 digits.

**REPLACE TO:** This is the number which is to be

dialed by replacing the initial digits of the dialed number; this can be up to 8 digits.

When you enter this digit as 0 then the prefix number will be deleted.

Example:

To convert the prefix number from 9522 to 022 :

**\*\*22#9522\*022#**

To delete the stored prefix number like 9522 :

**\*\*22#9522\*#**

To clear all prefix number: **\*\*22##**

Default: No Prefix Conversion

## **Call limit function**

This function allows you to limit the numbers to which the GSM UNIT will dial. With this function enabled the GSM UNIT will only allow calls to be made to numbers that are included in the outgoing calls list.

If the call limit function is disabled the UNIT will connect to any number dialed.

Program code \*\*42#0# to disable limit outgoing number function.

Program code \*\*42#1# to enable limit outgoing number function.

Program code \*\*43# the limit outgoing number# to set the “limit outgoing number” (10 numbers can be stored)

Program code: \*\*43#the limit outgoing number\*# to delete this number from list.

Program code: \*\*43## to delete all numbers from the list.

### **Disable SIM card lock**

Disable SIM card lock

The command code is \*\*52#password A#

Notice: the password A is setting by user self when he enables SIM card lock creates the password A.

### **Enable SIM card lock**

UNIT initial PIN is 1234 for PIN non-activated SIM card; or request PIN code for PIN activated SIM card; after enable this function UNIT will create

random code as new PIN code for this SIM card.  
Then this SIM card will be lock to UNIT after next restart the UNIT.

The command code is **\*\*53#password A#**

Notice: the password A is created by user, when to disable SIM card lock need must use the same password.

### **Disable phone lock**

Disable phone lock.

The command code is **\*\*54#password B#**

Notice: the password B is setting by user self when he enables SIM card lock creates the password B.

### **Enable phone lock**

Setting UNIT only can work with present SIM card.

The command code is **\*\*55#password B#**

Notice: the password B is created by user, when to disable SIM card lock need must use the same password.

## **Disable network lock**

Disable network lock.

The command code is \*\*56#password C#

Notice: the password C is setting by user self when he enables SIM card lock creates the password C.

## **Enable network lock**

Setting UNIT work only with present SIM cards

Network code.

The command code is \*\*57#password C#

Notice: the password C is created by user, when to disable SIM card lock need must use the same password.

## **Disable cell lock**

Disable cell lock

The command code is \*\*58#password D#

Notice: the password D is setting by user self when he enables SIM card lock creates the password D.

## **Enable cell lock**

Setting UNIT only can work in current cell ID list.



The command code is **\*\*59#password D#**

*Notice: 1. The password D is created by user, when to disable SIM card lock need must use the same password.*

*2. The password A, B, C, D is 4 numbers, such as 3333 or 4567.*

*3. Set phone, SIM card, network, cell lock command must be set under setting mode. For example, if want to lock cell, must pick **\*\*#** to enter setting mode, then input **\*\*59#password D#***

## Command List

Short Review of Command list

Suggested Program List	Function	Default
<b>**#</b>	◆ Enter setting mode, all the program code must be used at setting mode	
<b>*#</b>	◆ Exit the program	

	code and setting mode	
**00#	◆ Restore default setting	
**01##	◆ Check the version	
**06##	◆ Check IMEI number	
**11#Level#	◆ Set speaker volume	
**12#0*Level#	◆ Set microphone gain level	
**14#1#	◆ FSK	DTMF
**14#2#	◆ DTMF	
**14#0#	◆ Disable GSM caller ID	
**22#Number* replace to #	◆ Prefix Conversion number set	No number
**22#Number* #	◆ Del this Prefix Conversion number	
**22##	◆ Del all Prefix Conversion number	

**41#call number#	◆ Input the call number	No number
**42#0#	◆ Disable limit outgoing number function	Disable
**42#1#	◆ Enable limit outgoing number function	
**43# the limit outgoing number#	◆ Set the limit outgoing number, it can store 10 groups	No number
**43#the limit incoming number*#	◆ Delete this limit outgoing number from list	
**43##	◆ Delete all the limit outgoing numbers from list	
**52#password A#	◆ Disable SIM card lock	Disable
**53#password A#	◆ Enable SIM card lock	

**54#password B#	◆ Disable phone lock	Disable
**55#password B#	◆ Enable phone lock	
**56#password C#	◆ Disable network lock	Disable
**57#password C#	◆ Enable network lock	
**58#password D#	◆ Disable cell lock	Disable
**59#password D#	◆ Enable cell lock	

## 6. Important notes

If the PSTN line is not connected and only GSM network is being used then make sure to de-activate the router list, also de-activate the routing mode.

It is strongly recommended to set the UNIT to “Default settings” using the command \*\*00#

before using the UNIT or in case of any wrong programming done by mistake.

Please do not use any other power supply (adaptor), use only the power adaptor supplied with the UNIT.

## **7. Maintenance**

The device is an electronic product of high craftsmanship. Handle it with care to get optimum use.

The Following suggestions will help you to maintain your device.

Use the device at a temperature within 0°C to + 50°C.

Store it in a clean, dust free place. The performance of device can be impaired by dust.

Keep it and all its accessories out of the reach of small children.

Keep it in dry place and do not use harsh

chemicals to clean it.

To clean the device, wipe it with a soft anti-static cloth slightly dampened in a mild soap-and-water solution.

Treat the device gently and avoid dropping, knocking or shaking it.